

CLAIMS:

1. A sintered body of gastight polycrystalline aluminum oxide containing magnesium in oxidic form and a second metal M in oxidic form, characterized in that the second metal M is selected from erbium, holmium, dysprosium and thulium, and the aluminum oxide further comprises zirconium in oxidic form, magnesium calculated as MgO
5 being present in a quantity by weight of 50 to 1000 ppm, the second metal calculated as M_2O_3 being present in a quantity by weight of 10 to 100 ppm, and zirconium calculated as ZrO_2 being present in a quantity by weight of 50 to 600 ppm.
2. A sintered body as claimed in claim 1, characterized in that magnesium
10 calculated as MgO is present in a quantity by weight of 50 to 500 ppm, the second metal calculated as M_2O_3 is present in a quantity by weight of 20 to 50 ppm, and zirconium calculated as ZrO_2 is present in a quantity by weight of 200 to 500 ppm.
3. A sintered body as claimed in claim 2, characterized in that magnesium
15 calculated as MgO is present in a quantity by weight of 50 to 500 ppm, the second metal calculated as M_2O_3 is present in a quantity by weight of 30 to 50 ppm and zirconium calculated as ZrO_2 is present in a quantity by weight of 200 to 400 ppm.
4. An electric lamp comprising a lamp vessel of gastight polycrystalline
20 aluminum oxide containing magnesium in oxidic form and a second metal M in oxidic form, characterized in that the lamp vessel comprises a sintered body as claimed in claim 1.
5. An electric lamp as claimed in claim 4, characterized in that the lamp vessel
25 comprises a sintered body as claimed in claim 2.
6. An electric lamp as claimed in claim 5, characterized in that the lamp vessel
comprises a sintered body as claimed in claim 3.